



Yesh Dhruv
Applied Statistics and Informatics
Indian Institute of Technology Bombay

22N0054
M.Sc.
Gender: Male
DOB: 21/05/2002

Examination	University	Institute	Year	CPI / %
Post Graduation	IIT Bombay	IIT Bombay	2023	7.58
Graduation	Delhi University	Ramjas	2022	7.63
Graduation Specialization: Statistics				

PROFESSIONAL EXPERIENCE

Data Science Intern | Brandintelle Services Pvt. Ltd.

[May'23 – Aug'23]

Marketing Analytics and Budget Optimization

- Automated **Media Mix model** (MMX) training for Automotive/Fashion industry to identify market-specific drivers of sales
- Employed **Bayesian Hierarchical MMX** models for **geo-specific KPI insights** effectively guiding marketing strategies
- Utilized the model's optimizer to efficiently allocate marketing budget, **maximizing returns** and driving business growth
- Deployed MMX models on cloud with **serverless APIs**, ensuring seamless **accessibility** and **scalability** for operations

ACADEMIC PROJECTS

Telco Churn Prediction | Course Project

[Aug'23 – Present]

Guide – Prof. Sanjeev V. Sabnis and Prof. Radhendushka Srivastava, Department of Mathematics, IIT Bombay

- Developing churn prediction model to optimize revenue by identifying **potential churners** through customer attributes
- Leveraging various classifiers, including Logistic Regression, **SVM**, **KNN**, **Decision Tree**, **Random Forest**, and **XGBoost**, etc
- Evaluating model effectiveness using methods – **AUC-ROC** for comparative analysis & **recall** for predictive performance

Client Segmentation | Course Project

[Aug'23 – Present]

Guide – Prof. Siuli Mukhopadhyay, Department of Mathematics, IIT Bombay

- Utilizing techniques such as **Principal Component Analysis** (PCA) and **K-means clustering**, for client categorization
- Enhancing the quality of decision-making through **predictive insights** on demand patterns and resource allocation

Imbalanced Classification using Bayesian Technique | Summer Project

[Aug'23 – Present]

Guide – Prof. Sandipan Karmakar, Xavier's institute of management, Bhuvneshwar

- Implementing **MCMC** - Metropolis-Hastings, and Gibbs Sampling to sample from complex posterior distributions
- Utilizing advanced **Bayesian Logistic Regression** to address the complexity of highly imbalanced multinomial classification

Time Series Analysis of Air Passengers | Summer Project

[May'23 – Aug'23]

Guide – Prof. Sanjeev V. Sabnis, Department of Mathematics, IIT Bombay

- Examined the stationarity using **ADF test** and addressed the non-stationarity problem by **log differencing** for modeling
- Checked for seasonality and determined optimal parameters to fit **ARIMA** & **SARIMA** models using **ACF** & **PACF** plots
- Diagnosed model residuals and validated predictive power of fitted model by assessing metrics such as **MAPE** & **RMSE**

Multiple Linear Regression | Course Project

[Jan'23 – April'23]

Guide – Prof. Siuli Mukhopadhyay, Department of Mathematics, IIT Bombay

- Analyzed the dataset to identify outliers and influential points using methods viz, **Cook's Distance**, **DFBETAS**, and **DFBETAS**
- Identified **multicollinearity** by evaluating **Variance Inflation Factor** (VIF) and addressed it utilizing **Ridge Regression**
- Acquired suitable set of predictors using stepwise approach based on metrics - Adjusted R^2 , **AIC**, **BIC** & **Mallow's Cp**
- Validated model by assessing all the assumptions and performance on test data by achieving **Adjusted R^2 score of 0.923**

TECHNICAL SKILLS

Technical Skills	Programming Languages: R Python SQL	Software: GIT MS Office Power BI
Academic Courses	Completed: Econometrics Statistical inference Applied Stochastic Processes Regression Analysis Ongoing: Statistical Techniques in Data Mining Categorical data analysis Multivariate Analysis	

POSITIONS OF RESPONSIBILITY

Comic Cons Coordinator | PG Cult, IIT Bombay

[Jun'22 – Aug'23]

- Organized and managed various Comic Cons events for PG Cult Phase 1 & Phase 2 for over **2k PG students** at the Institute
- Supervised logistics with more than **60 council members** to ensure efficient operation and effective communication

SCHOLASTIC ACHIEVEMENTS

- Secured **AIR - 27** in IIT JAM Mathematical Statistics among 2912 candidates conducted by IIT Roorkee [2022]
- Awarded **first position** in 12th standard Physics CBSE board exams [2019]

EXTRA CURRICULAR

- Serving as an expert in the field of **Statistics and Probability** and delivering high-quality solutions at Chegg India
- Senior Coordinator**, Overall Management Team Statistica – Annual Fest of Dept. of Statistics, Ramjas College
- Bagged **2nd position** at **Zonal level Basketball** tournament conducted by the Directorate of Education